CLAIMS

1. A method of managing traffic in an optical network, the method comprising:
   - tagging a first portion of traffic in ingress to at least one node of said network as high priority traffic and a second portion of traffic in ingress to said at least one node as low priority traffic;
   - configuring at least a portion of said network so that a first portion of switched circuits exiting from said at least one node is adapted to carry said high priority traffic and a second portion of switched circuits exiting from said at least one node is adapted to carry said low priority traffic;
   - detecting a burst of said high priority traffic;
   - after said step of detecting said burst, acting on at least a portion of said low priority traffic, so as to deplete at least one interface of said at least one node, connected to at least one switched circuit of said second portion of switched circuits;
   - tearing down at least one switched circuit connected to said at least one depleted node interface;
   - setting up at least one new temporary switched circuit starting from said at least one depleted node interface;
   - forwarding a portion of said high priority traffic to said at least one depleted node interface, and, thereby, to said new temporary switched circuit.

2. A method according to claim 1, characterized in that said step of detecting a burst comprises:
   - estimating a first bandwidth of said high priority traffic in a first predetermined time interval;
   - comparing said first bandwidth with a first predetermined threshold.

3. A method according to claim 2, characterized in that said step of acting on at least a portion of low priority traffic is carried out if said first bandwidth exceeds said first predetermined threshold.

4. A method according to claim 2 or 3, characterized in that said step of estimating said first bandwidth comprises:
   - measuring a bandwidth of said high priority traffic in a second predetermined time interval;
   - forecasting said first bandwidth in said first time interval from said measured bandwidth.

5. A method according to any one of claims 2 to 4, characterized in that it further comprises detecting an end of said high priority traffic burst.

6. A method according to claim 5, characterized in that said step of detecting an end of said high priority traffic burst comprises:
   - estimating a second bandwidth of said high priority traffic in a third predetermined time interval;
   - comparing said second bandwidth with a second predetermined threshold.

7. A method according to claim 6, characterized in that said step of estimating said second bandwidth comprises:
   - measuring a bandwidth of said high priority traffic in a fourth predetermined time interval;
   - forecasting said second bandwidth in said third time interval from said measured bandwidth.

8. A method according to claim 6 or 7, characterized in that said first threshold is higher than or equal to said second threshold.

9. A method according to any one of claims 5 to 8, characterized in that it further comprises:
   - after said step of detecting said end of burst, acting on said forwarded portion of said high priority traffic, so as to route said forwarded portion towards at least one switched circuit of said first portion of switched circuits;
   - tearing down said at least one new temporary switched circuit;

- restoring said at least one torn down switched circuit of said second portion of switched circuits.

10. A method according to claim 9, characterized in that said step of acting on said forwarded portion of said high priority traffic is carried out if said second predetermined threshold exceeds said second bandwidth.

11. An optical network comprising at least one node and at least one network controller, wherein:
- said at least one node comprises a router adapted to tag a first portion of traffic in ingress thereof as high priority traffic and a second portion of traffic in ingress thereof as low priority traffic;
- said network controller is adapted to configure at least a portion of said network in order to have a first portion of switched circuits exiting from said at least one node adapted to carry said high priority traffic and a second portion of switched circuits exiting from said at least one node adapted to carry said low priority traffic;
- said network controller also comprises a traffic controller adapted to detect a burst of said high priority traffic and to thereby send a first warning signal;
- said router is also adapted to act on at least a portion of said low priority traffic in case of receipt of said first warning signal, so as to deplete at least one node interface, connected to at least one switched circuit of said second portion of switched circuits;
- said network controller is also adapted to tear down at least one switched circuit connected to said depleted node interface, in case of receipt of said first warning signal;
- said network controller is also adapted to set up at least one new temporary switched circuit starting from said at least one depleted node interface;
- said router is also adapted to forward a portion of said high priority traffic to said at least one depleted node interface, and, thereby, to said new temporary switched circuit.

12. An optical network according to claim 11, characterized in that said traffic controller is adapted to:
    - estimate a first bandwidth of said high priority traffic in a first predetermined time interval;
    - compare said first bandwidth with a first predetermined threshold.

13. An optical network according to claim 12, characterized in that said traffic controller is adapted to send said first warning signal if said first bandwidth exceeds said first predetermined threshold.

14. An optical network according to claim 12 or 13, characterized in that said traffic controller is also adapted to:
    - measure a bandwidth of said high priority traffic in a second predetermined time interval;
    - forecast said first bandwidth in said first time interval from said measured bandwidth.

15. An optical network according to any one of claims 12 to 14, characterized in that it said traffic controller is also adapted to detect an end of said high priority traffic burst and thereby to send a second warning signal.

16. An optical network according to claim 15, characterized in that said traffic controller is also adapted to:
    - estimate a second bandwidth of said high priority traffic in a third predetermined time interval;
    - compare said second bandwidth with a second predetermined threshold.

17. An optical network according to claim 16, characterized in that said traffic controller is also adapted to:
    - measure a bandwidth of said high priority traffic in a fourth predetermined time interval;
    - forecast said second bandwidth in said third time interval from said measured bandwidth.

18. An optical network according to claim 16 or 17, characterized in that said first threshold is higher than or equal to said second threshold.

19. An optical network according to any one of claims 15 to 18, wherein:
- said router is also adapted to act on said forwarded portion of said high priority traffic in case of receipt of said second warning signal, so as to route said forwarded portion towards at least one switched circuit of said first portion of switched circuits;
- said network controller is also adapted to tear down said at least one new temporary switched circuit, in case of receipt of said second warning signal;
- said network controller is also adapted to restore said at least one torn down switched circuit of said second portion of switched circuits, in case of receipt of said second warning signal.

20. An optical network according to any one of claims 11 to 20, characterized in that said at least one node comprises a switching equipment.

21. An optical network according to claim 20, characterized in that said switching equipment comprises a digital cross connect, or an optical cross connect, or an add/drop multiplexer, or a fiber switch.

22. An optical network according to claim 20 or 21, comprising optical fibers connected to said switching equipment.